



**THE COOPERATIVE UNIVERSITY OF KENYA (CUK)**

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**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**COURSE OUTLINE**

**(3 credit hours)**

**Course Instructor: Wachira D.**

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**BCIT 3134 SOFTWARE PROJECT MANAGEMENT (42 HOURS)**

**Expected Learning Outcomes**

Upon completion of this course, students will have an understanding and be able to:

1. Design processes suitable for different types of projects.
2. Develop a comprehensive project plan for a significant development effort.
3. Apply management techniques to software projects.
4. Estimate costs for a project using several different techniques.

**Course outline**

**Introduction**

- Definition
- Features of a project
- Examples of projects
- Characteristics of a project
- Reasons why projects fail
- Roles and Responsibilities of a project manager.

**Project Life Cycle**

- Project initiation, identification, preparation, appraisal, selection, negotiation and financing, planning for implementation, implementation and terminal evaluation
- Constraints to completion of projects

**Project Planning/Preparation**



- ✓ Feasibility analysis
- ✓ Stages of feasibility analysis
- ✓ Importance of feasibility analysis
- ✓ Technical/economic, administrative, environmental, social and financial feasibility
- ✓ Feasibility Report

#### **Project Evaluation/Appraisal & Selection**

- ✓ Cost Benefit analysis and software resources
- ✓ Project selection
- ✓ Appraisal criteria and techniques.

#### **Project Implementation and Management**

- ✓ Project scheduling
- ✓ Time-CPM and PERT
- ✓ Project control chart

#### **Project Deliverables**

- ✓ Qualitative and quantitative information, reviews, approaches to SQA,
- ✓ Metrics- productivity and software, reliability factors. ISO 9000 concepts

#### **Risk Analysis**

- ✓ Risk Analysis
- ✓ Broad types of Techniques

#### **Monitoring and Evaluation**

- ✓ Evaluation
- ✓ Process of monitoring and evaluation

#### **Project Termination**

- ✓ Types of Terminations
- ✓ How and why projects Terminate
- ✓ Typical termination activities
- ✓ Need for a Project history

#### **Instruction Materials**

Textbooks, Whiteboards , computers, LCD's and handouts / notes.

Course Assessment

Continuous Assessments Tests 30%

Final Examination 70%

Total 100%

#### **Course Textbooks**



1. Chatzoglou, P.D., Theriou, N.G., Dimitriadis, E. and Aggelides, V. (2013). ‘Software project management and planning: The case of the Greek IT sector’, Int. J. Applied Systemic Studies. New York. ISBN: 46320122
3. A.Shenhar and D. Dvir, (2014). Reinventing project management: The diamond approach to successful growth and innovation. Harvard Business Press. ISBN: 0497212
4. B. Kitchenham, O. Pearl Brereton, D. Budgen, et al., (2009). “Systematic literature reviews in software engineering—a systematic literature review,” Information and software technology. ISBN: 0495391328

#### **Reference Textbooks**

1. M. D. Cleden, (2012). Managing project uncertainty. Gower Publishing, Ltd. ISBN:3453-9871
2. Q. Wang and J. Liu, (2006). “Project uncertainty, management practice and project performance: An empirical analysis on customized information systems development projects,” IEEE International. ISBN: 0123546-02
3. Pfleeger, Shari Lawrence, (2010). Software Engineering Theory and Practice, Fourth Edition. Prentice- Hall. ISBN-10: 0136061699

#### **Course Journals**

1. Pfleeger, Shari Lawrence, (2010). Software Engineering Theory and Practice, Fourth Edition. Prentice- Hall. ISBN-10: 0136061699
2. International journal of project management. ISSN: 3241-091P.

#### **Reference Journals**

1. International Journal of Software Management - ISSN: 2394-4452
2. International Journal of Managing Projects in Business, ISSN: 1753-8378
3. Information & Knowledge Management Journal, ISSN: 1753-8378